

Abstract

A telescopic shaft for steering of a vehicle is assembled in a steering shaft and includes a male shaft and a female shaft that are so fitted as not to be rotatable but to be slidable. Rolling members are fitted through an elastic body for pre-load between at least a pair of axially-extending grooves formed in an outer peripheral surface of the male shaft and in an inner peripheral surface of the female shaft.

A slide member is fitted in between at least another pair of axially-extending grooves formed in the outer peripheral surface of the male shaft and in the inner peripheral surface of the female shaft. When a steering torque is equal to or smaller than a predetermined level, the elastic body for the pre-load exhibits a low rigidity characteristic as the elastic body performs pre-load action. When the steering torque is equal to or larger than the predetermined level, the slide member exhibits a high rigidity characteristic as the slide member engages with the pair of axially extending grooves.